Patent claims

1. A method for detecting a tear-off strip (11) or a tear-off thread on a material web (12) or film web with the aid of sensors, characterized by the following features:

a) the sensors are ultrasonic transmitters (18), on the one hand, and ultrasonic receivers (19), on the other hand, which are positioned on different sides of the material web (12),

b) ultrasonic transmitter (18) and ultrasonic receiver (19) are positioned such that the material web (12) conveyed between ultrasonic transmitter (18) and ultrasonic receiver (19) is registered by ultrasonic waves substantially exclusively in the region of the tear-off strip (11) or tear-off thread,

c) the ultrasonic transmitter (18) is constructed in such a way that a lobe or response curve generated by the latter corresponds approximately to the width of the tear-off strip (11),

d) the ultrasonic receiver (19) is connected to an evaluation unit which reacts to changes in the intensity of the waves picked up.

2. An apparatus for implementing the method as claimed in claim 1, a tear-off strip (11) or tear-off thread being laid continuously on a continuously conveyed material web (12) and joined to the latter and it then being possible for blanks for wrapping to be severed from the web, characterized in that, following a joining station of material web (12) and tear-off strip (11), a

testing device for detecting the tear-off strip (11) is positioned in a fixed location and the film web can be moved past this testing apparatus, the testing apparatus comprising at least one ultrasonic transmitter (18) and at least one ultrasonic receiver (19), ultrasonic transmitter (18) and ultrasonic receiver (19) being positioned on both sides of the material web (12) in such a way that sound waves originating from the ultrasonic transmitter (18) strike the material web (12) substantially exclusively in the region of the tear-off strip (11) and, if appropriate, can be picked up by the opposite ultrasonic receiver (19).

3. The apparatus as claimed in claim 2, characterized in that ultrasonic transmitter (18) and ultrasonic receiver (19) are positioned in the region of an upright section (20) of the material web (12), in particular immediately above an upright web conveyor, namely a suction belt (22) of a blank-cutting unit (16), preferably following a deflection roll (21).

4. The apparatus as claimed in claim 2 or 3, characterized in that ultrasonic transmitter (18) and ultrasonic receiver (19) are oriented in an oblique position with respect to the plane of the material web (12).

5. The apparatus as claimed in claim 2 or one of the further claims, characterized in that the ultrasonic transmitter (18) is arranged underneath the ultrasonic receiver (19), preferably on the side of the material web (12) having the tear-off strip (11).

6. The apparatus as claimed in claim 2 or one of the further claims, characterized in that the ultrasonic transmitter (18) is provided with a limiting means on the outlet side in order to influence the characteristics or width of the response curve, in particular with a (slot-like) aperture stop (24).

7. The apparatus as claimed in claim 6, characterized in that the aperture stop (24) bounds a gap (25) extending diametrically over the ultrasonic transmitter (18) and running in the direction of the tear-off strip (11).